**Genetic Engineering**

Genetic engineering is the process of changing the genes in living things. (A gene is a segment of DNA that determines traits like like eye color.) By changing the genes in living things, scientists can create new animals or plants.

Scientists first decide which gene in a plant or animal that they need to change. Then they copy this gene in one living thing and put the copy into another living thing. Sometimes they use a tool called a gene gun to do this. The gun shoots the copied gene right into the cell.

Once the new gene is in the cell, it changes the cell. The new species that is made is called a genetically modified organism. This means that the new species was made by changing a gene.

Now the genetically modified organism can reproduce. This means it can make a new animal or plant. The new animal or plant will also have the new gene. A new plant may be stronger and healthier. It may grow well even with little rain. Or it may grow well in bad soil.

Some plants are even strong enough to live with weeds. Many of these new plants are used for food. Other plants are made into medicine.

Animals whose genes are changed may grow larger and stronger. Genetically modified cows can make more milk. Genetically modified chicken can lay more eggs.

Genetic engineering can also help people who are sick with an inherited disease. An inherited disease is passed down from parents to children. One example of an inherited disease is cystic fibrosis.

Scientists are working to replace genes that cause disease with healthy genes. That way the child of the genetically altered person will not be sick.

Scientists are working to learn more about genetic engineering. Someday genetic engineering may make people's bodies stronger or healthier. Scientists might also be able to make brains smarter. Then people would pass those changes on to their children.

However, some people do not think genetic engineering is a good thing. They do not think people should be doing nature's job. They worry about possible dangers to the environment and other living things. For example, genetically modified plants and animals are much stronger and healthier than other plants or animals, so they might take over an area. Then other species will have no place to live.

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